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## CLAIMS

- 1. A variable nozzle (10) for a gas turbine fixed to a shaft (11), said variable nozzle (10) comprising a pressurized upper surface (12) and a depressurized lower surface (14) opposite to the upper surface (12), characterized in that said variable nozzle comprises a series of substantially "C"-shaped sections, each having a first rounded end (20) and a second rounded end (21), each section of the series of sections also having the concavity 10 facing upwards with respect to a base (90) and arranged one after another continuously, in the direction of an axis of the shaft (11) along a curved line (60), characterized in that said at least second degree curved line (60) lies on a surface (70) having an axis orthogonal to 15 the axis of the shaft (11) and also tilted with respect to the base (90) by an angle (80).
  - 2. The variable nozzle (10) according to claim 1, characterized in that said curved line (60) is a parabolic line.
- 20 3. The variable nozzle (10) according to claim 1, characterized in that said curved line (60) is a hyperbolic line.
  - 4. The variable nozzle (10) according to claim 1, characterized in that said curved line (60) is a combination of a parabolic line and a hyperbolic line.

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5. The variable nozzle (10) according to claim 1, characterized in that said curved line (60) is a third degree line.

- 6. The variable nozzle (10) according to any of the previous claims, characterized in that said curved line (60) has a maximum or minimum point.
  - 7. The variable nozzle (10) according to any of the previous claims, characterized in that the upper surface (12) is saddle-shaped.
- 10 8. A variable nozzle for a gas turbine as previously described and illustrated above and for the purposes specified above.

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